AMENDMENTS TO THE CLAIMS

1. - 30 (Canceled)

31. (Previously presented) An autologous T cell vaccine comprising inactivated T cells that are reactive against SEQ ID NOS: 1-6.

32. (Canceled)

33. (Currently Amended) The vaccine of claim 1 wherein the vaccine consists ~~essentially~~ of T cells that are reactive against SEQ ID NOS: 1-6.

34. (Withdrawn) A method of making the vaccine of claim 1 for the treatment of multiple sclerosis comprising:

(a) incubating a sample comprising T cells isolated from a patient to be treated with the vaccine in the presence of one or more multiple sclerosis associated antigens or derivatives thereof;

(b) stimulating the cells of (b) with a mitogen; and

(c) inactivating the cells of (c),

wherein SEQ ID NOS: 1-6 comprise the antigens.

35. (Withdrawn) The method of claim 34 wherein one or more T cells of (b) are selected from the cells of (a) and wherein the T cells of (b) express one or more first markers selected from the group consisting of CD69, CD4, CD25, and HLA-DR and one or more second markers selected from the group consisting of IL-2, γIFN, TNFα, IL-5, IL-10 and IL-13.

36. (Withdrawn) The method of claim 34 wherein the multiple sclerosis associated antigens consist of SEQ ID NOS: 1-6.

37. (Withdrawn) The method of claim 34 wherein the sample comprises peripheral blood T cells.

38. (Withdrawn) The method of claim 34 wherein the sample comprises cerebrospinal fluid T cells.

39. (Withdrawn) The method of claim 34 wherein the inactivating of the cells in (c) is by irradiation or chemical treatment.

40. (Withdrawn) A method for treating multiple sclerosis comprising administering to a patient in need thereof the composition of claim 31.

41. (Withdrawn) A method for treating multiple sclerosis comprising administering to a patient in need thereof the composition of claim 32.

42. (Withdrawn) A method for treating multiple sclerosis comprising administering to a patient in need thereof the composition of claim 33.

AMENDMENTS TO THE SPECIFICATION

Please replace paragraphs [0021] and [0022] with the following properly spaced paragraphs, thereby deleting the large space between paragraphs [0021] and [0022] as originally filed. No new text has been added to the specification.

[0021] Therefore, there exists a need to develop improved methods of isolating T cells with specificity for antigens, such as MBP, that may be used to produce T cell vaccines for the treatment of patients with T cell-mediated diseases such as MS. There also exists a need to develop improved methods for producing T cell vaccines with a heterogeneous pattern of Vβ-Dβ-Jβ gene usage to account for clonal shift of autoreactive T cells.

SUMMARY OF THE INVENTION

[0022] The present invention is generally directed to methods of isolating antigen-specific T cells and more particularly T cells specific for self or autoantigens. The methods for isolating one or more T cells specific for an antigen of interest generally comprise incubating a sample comprising T cells obtained from a patient with said antigen or a derivative thereof; selecting one or more T cells that express one or more first markers selected from the group consisting of CD69, CD4, CD25, CD36 and HLADR; and one or more second markers selected from the group consisting of IL-2, IFNg, TNFα, IL5, IL-10 and IL-13.